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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,638	02/19/2004	Ming Bo Wang	021565-156	2125

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BUCHANAN, INGERSOLL & ROONEY PC
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EXAMINER

KALLIS, RUSSELL

ART UNIT	PAPER NUMBER
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1638

NOTIFICATION DATE	DELIVERY MODE
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02/24/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No. 10/780,638	Applicant(s) WANG ET AL.	
	Examiner RUSSELL KALLIS	Art Unit 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/24/2008 has been entered.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-12 are pending and examined.

Claim Rejections - 35 USC § 103

Claims 1-12 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Wesley S. *et al.* The Plant Journal, 2001; Vol. 27, no. 6; pp. 581-590 in view of Yukawa Y. *et al.* Plant Molecular Biology, 2002; Vol. 50, pp. 713-723 and Applicant's specification. This rejection is maintained for the reasons of record set forth in the Official action mailed 1/25/2007 and 10/22/2007. Applicant's arguments filed 11/24/2008 have been considered but are not deemed persuasive.

Applicant asserts on page 2 bridging page 3 that a careful reading of Yukawa shows that Yukawa did not suggest using type 3 Pol II promoters. The Examiner believes Applicant meant to state that the promoters are type 3 Pol III. Nonetheless, a careful reading does indicate that Yukawa advocates using the plant 7SL POL III promoter based upon the successful demonstration of transcriptional activity expressing antisense RNA and ribozyme sequences in

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an *in vitro* cell extract system from *Nicotiana tabacum* cells (see abstract). Moreover, the 7SL POL III promoter is a type 3 promoter well known in the art.

Applicant asserts that Yukawa is limited to, or only teaches *in vitro* expression using Pol III promoters (response page 8 paragraph 2). Contrary to Applicants' assertion, Yukawa does teach the usefulness of the Pol III promoters for *in vivo* expression in transformed plants. In addition, one of ordinary skill in the art would realize that a promoter that is useful for antisense or ribozyme mediated silencing because of the expression properties of the promoter would also prove useful in the double stranded "antisense silencing" constructs taught by Wesley.

In response to Applicants' assertion on page 3 of the response that Yukawa does not suggest or motivate using a type 3 promoter such as the 7SL POL III promoter for hairpin RNA constructs it would have been obvious to try, given the level of the art in using strong promoters that produced adequate amount of transcript for bioengineering decreases in a variety of gene expression in plants and the direct suggestion by Yukawa that Pol III promoters are attractive vehicles for the expression of antisense and ribozymes and that the 7SL POL III promoter is a type III promoter (see Yukawa page 720 discussion in column 2 lines 8-11 and page 714 1st column 2nd full paragraph).

Applicants' assertion that the instantly claimed invention is unanticipated in view of the specification, claims, including the supporting remarks in the declaration of Dr. Wang that his results are entirely unexpected, is not persuasive because Yukawa teaches that a significant advantage of the type 3 POL III promoter over the type 2 POL III promoter is that the type 3 POL III promoter does not have internal promoter, that are sequences that fall within the coding region of their respective genes, as is the case with the type II promoters; and that this would

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lead to shorter transcripts, and stronger transcription and expression; thereby making the type 3 promoter a better choice for genetic engineering of reducing gene expression using antisense technology (see Yukawa introduction page 713 to page 714 column 1 end of section and Abstract).

No claim is allowed.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell Kallis whose telephone number is (571) 272-0798. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571) 272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Russell Kallis/
Primary Examiner, Art Unit 1638
February 6, 2009